

RADIO STATION KXCI-FM  
FOUNDATION FOR CREATIVE BROADCASTING, INC.

CHANNEL 217C2 91.3 MHz

TUCSON, ARIZONA

FILE No.: BLED-19910917KB

APPLICATION FOR CONSTRUCTION PERMIT

FCC FORM 340

AUXILIARY ANTENNA

47 CFR, PART 73, SECTION 73.1675

SEPTEMBER 23, 2013

RADIO STATION KXCI - FM  
CHANNEL 217C2 91.3 MHz  
TUCSON, ARIZONA

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AFFIDAVIT

STATE OF ARIZONA

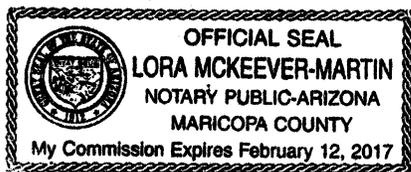
)ss.

COUNTY OF MARICOPA

JAMES S. STANLEY BEING FIRST DULY SWORN UPON OATH HEREBY DEPOSES AND STATES:

1. THAT HE IS A CONSULTING ENGINEER WHO PRACTICES IN THE FIELD OF RADIO AND TELEVISION ENGINEERING.
2. THAT HE HAS BEEN RETAINED BY THE FOUNDATION FOR CREATIVE BROADCASTING, INC., LICENSEE OF STATION KXCI-FM TUCSON, ARIZONA, FOR THE PURPOSE OF PREPARING THIS APPLICATION AND ASSOCIATED ENGINEERING EXHIBITS.
3. THAT HE HAS BEEN INVOLVED IN TECHNICAL DEVELOPMENTS PERTAINING TO BROADCAST ENGINEERING FOR MORE THAN 40 YEARS.
4. THAT HE HAS OVER THE COURSE OF TIME, PREPARED NUMEROUS OTHER APPLICATIONS AND EXHIBITS OF THIS TYPE AND, HIS QUALIFICATIONS ARE A MATTER OF PUBLIC RECORD WITH YOUR COMMISSION.
5. THAT HE HAS PERSONALLY PREPARED AND REVIEWED THE DOCUMENTS AND TECHNICAL DATA CONTAINED HEREIN AND BELIEVES THE INFORMATION TO BE ACCURATE AND TRUE TO THE BEST OF HIS KNOWLEDGE AND BELIEF.

SUBSCRIBED AND SWORN TO BEFORE ME ON THIS 27<sup>TH</sup> DAY OF SEPTEMBER, 2013.



*James S. Stanley*  
\_\_\_\_\_  
AFFIANT

*Lora McKeever-Martin*  
\_\_\_\_\_  
NOTARY

AFFIX SEAL HERE

KXCI-FM CHANNEL 217C2 91.3 MHZ

TUCSON ARIZONA

PROPOSED AUXILIARY ANTENNA

FIGURE 1

ENGINEERING STATEMENT OF JAMES S. STANLEY

**OVERVIEW**

THIS APPLICATION AND ASSOCIATED FCC FORM 340 HAVE BEEN PREPARED ON BEHALF OF THE FOUNDATION FOR CREATIVE BROADCASTING, LICENSEE OF STATION KXCI-FM, TUCSON, ARIZONA. KXCI OPERATES AS A CLASS C2 FACILITY ON 91.3 MHZ PURSUANT TO LICENSE FILE NUMBER BLED-19910917KB. THE FACILITY ID NUMBER FOR KXCI IS 22167.

THE APPLICANT WISHES TO CONSTRUCT AN AUXILIARY ANTENNA SYSTEM. PURSUANT TO SECTION 73.1675(1)(A), THIS APPLICATION AND THE ASSOCIATED ENGINEERING EXHIBITS HAVE BEEN PREPARED IN SUPPORT OF THE PROPOSED CONSTRUCTION.

**PROPOSED SITE**

THE PROPOSED SITE FOR THE AUXILIARY ANTENNA SYSTEM IS LOCATED AT 32° 15' 11.00" NORTH LATITUDE, 110° 57' 44.00" WEST LONGITUDE BASED UPON (NAD 27 DATUM). LOCATED AT THE SITE IS AM BROADCAST STATION KCEE. KCEE OPERATES ON 690 KILOHERTZ WITH A DAYTIME POWER OF 0.25 KILOWATTS AND NIGHTTIME POWER OF 0.003 KILOWATTS; PURSUANT TO LICENSE FILE NUMBER BL-20030616AKY. THE FACILITY ID FOR KCEE IS 24590. THE APPLICANT HAS ENTERED INTO AN AGREEMENT WITH THE OWNER OF THE TOWER AND KCEE-AM, GOOD NEWS BROADCASTING, INC.; TO LEASE TOWER SPACE FOR THE PROPOSED AUXILIARY FM ANTENNA AND THE ASSOCIATED BROADCAST EQUIPMENT REQUIRED BY KXCI.

THE APPLICANT ACKNOWLEDGES THAT THE OPERATION OF KCEE-AM MUST BE MAINTAINED IN ACCORDANCE WITH THE RULES AND REGULATIONS THROUGHOUT CONSTRUCTION AND AFTER COMPLETION. ACCORDINGLY, SECTION 73.1692(A) AS IT PERTAINS TO AN AM NON-DIRECTIONAL TOWERS WILL BE ADHERED TO. THE RULE STATES THAT: "DURING INSTALLATION OF THE BROADCAST ANTENNA AND RELATED EQUIPMENT, THE AM STATION SHALL DETERMINE OPERATING POWER BY THE INDIRECT METHOD (SEE § 73.51). UPON THE COMPLETION OF THE INSTALLATION, ANTENNA IMPEDANCE MEASUREMENTS ON THE AM ANTENNA SHALL BE MADE, AND, PRIOR TO OR SIMULTANEOUSLY WITH THE FILING OF THE LICENSE APPLICATION COVERING THE BROADCAST STATION INSTALLATION, AN APPLICATION ON FCC FORM 302-AM (INCLUDING A TOWER SKETCH OF THE INSTALLATION) SHALL BE FILED WITH THE COMMISSION FOR THE AM STATION TO RETURN TO DIRECT POWER MEASUREMENT".

STANLEY BROADCAST ENGINEERING  
14537 W GRAND AVENUE SUITE 140 SURPRISE, ARIZONA 85374 (623)-215-9925

KXCI-FM CHANNEL 217C2 91.3 MHZ

TUCSON ARIZONA

ENGINEERING STATEMENT  
(CONTINUED)

**PROPOSED TOWER**

THE TOWER USED BY KCEE-AM AND PROPOSED FOR USE BY KXCI-FM IS ASR 1009810. THE GEOGRAPHIC COORDINATES FOR THE TOWER ARE 32° 15' 11.0" NORTH LATITUDE 110° 57' 46.0" WEST LONGITUDE BASED ON NAD 83 DATUM. WHEN THE NAD 83 COORDINATES ARE CONVERTED TO NAD 27 DATUM USING NADCON AND THEN ROUNDED TO THE NEAREST SECOND, THEY AGREE WITH THE KCEE-AM LICENSE. THESE NAD27 COORDINATES ARE SPECIFIED ON FCC FORM 340 REQUESTING A CONSTRUCTION PERMIT FOR THE KXCI-FM AUXILIARY ANTENNA. FIGURE 2 OF THIS REPORT IS A COPY OF THE ANTENNA STRUCTURE REGISTRATION FOR TOWER NUMBER 1009810. THE PROPOSED TOWER AND SITE ARE LOCATED 15.32 KILOMETERS FROM TUCSON INTERNATIONAL AIRPORT ON A BEARING OF 352.38° RELATIVE TO TRUE NORTH.

**PROPOSED INSTALLATION**

THE APPLICANT PROPOSES TO INSTALL A SHIVELY MODEL 6810-2-SS-DA ANTENNA FOR AUXILIARY OPERATION. THE ANTENNA CONSISTS OF TWO SECTIONS SPACED 0.5 WAVELENGTHS BETWEEN RADIATING ELEMENTS. THE ANTENNA WILL BE MADE DIRECTIONAL BY THE MANUFACTURER WHO WILL PROVIDE ALL NECESSARY DOCUMENTATION TO CERTIFY COMPLIANCE WITH THE PROPOSED OPERATION. THE SERVICES OF A REGISTERED LAND SURVEYOR WERE OBTAINED PRIOR TO THIS FILING TO VERIFY THE ALIGNMENT OF THE TOWER FACES AND LEGS RELATIVE TO TRUE NORTH. THE SAME SURVEYOR WILL SUPERVISE AND CERTIFY THE AZIMUTHAL ALIGNMENT OF THE INSTALLED DIRECTIONAL ANTENNA AT THE TIME OF COMPLETION. NO OTHER ANTENNAS ARE WITHIN THE APERTURE WHERE THE KXCI ANTENNA IS PROPOSED TO BE INSTALLED ON THE TOWER.

THE APPLICANT PROPOSES TO INSTALL THE ANTENNA AT A HEIGHT OF 83 METERS ABOVE GROUND LEVEL FOR THE RADIATION CENTER. FIGURE 3 OF THIS REPORT IS A VERTICAL ELEVATION DIAGRAM SHOWING THE PROPOSED INSTALLATION.

**PROPOSED DIRECTIONAL PATTERN**

FIGURE 4 OF THIS REPORT IS A POLAR COORDINATE PLOT OF THE PROPOSED ANTENNA PATTERN. THE PLOT OF THE PATTERN IS ORIENTED SUCH THAT 0° CORRESPONDS TO THE ACTUAL AZIMUTH WITH RESPECT TO TRUE NORTH. THE PROPOSED DIRECTIONAL ANTENNA COMPLIES WITH SECTION 73.316 OF YOUR COMMISSION'S RULES AND REGULATIONS.

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ENGINEERING STATEMENT  
(CONTINUED)

PROPOSED COVERAGE

FIGURE 5 OF THIS REPORT IS TABULATED DATA FOR 36 RADIALS BEGINNING AT 0° TRUE AND SPACED EVERY 10 DEGREES. FIGURE 5 SHOWS THE CALCULATED HEIGHT ABOVE AVERAGE TERRAIN FOR EACH OF THE 36 RADIALS. THE TERRAIN CALCULATIONS ARE BASED ON THE NGDC 30 SECOND DATA BASE. THE OVERALL HAAT FOR THE PROPOSED ANTENNA RADIATION CENTER IS 9 METERS. THE FIGURE 5 DATA SHOWS THE RELATIVE FIELD ASSIGNED TO EACH RADIAL WHICH FORMS THE BASIS FOR THE PROPOSED DIRECTIONAL PATTERN. ADDITIONALLY, THE DISTANCE TO THE 60 DBU CONTOUR IS SHOWN FOR EACH RADIAL. ALL CONTOUR CALCULATIONS ARE BASED ON THE F(50,50) CURVES. THE DATA SHOWS THE PROPOSED COVERAGE TO COMPLY WITH SECTION 73.1675(A)(1)(ii). FIGURE 6 OF THIS REPORT IS A COVERAGE MAP WHICH SHOWS THE 60 DBU CONTOUR OF THE MAIN KXCI SITE AND THE PROPOSED AUXILIARY 60 DBU CONTOUR.

RADIO FREQUENCY EXPOSURE

A RADIO FREQUENCY EXPOSURE ANALYSIS FOR THE PROPOSED AUXILIARY OPERATION IS ATTACHED TO FORM 340 AS EXHIBIT 24. THE REPORT SHOWS THAT THE MAXIMUM POWER DENSITY RESULTING FROM THE PROPOSED OPERATION IS 8.58 uW/cm<sup>2</sup> AT A DISTANCE OF 147.6 METERS FROM THE BASE OF THE TOWER. THIS REPRESENTS 4.29% OF THE MAXIMUM ALLOWABLE FOR GENERAL PUBLIC UNCONTROLLED ENVIRONMENTS AND AS SUCH IS EXCLUDED UNDER 1.1307 (B) (3) OF THE RULES.

SUMMARY

THE PROPOSED AUXILIARY OPERATION COMPLIES WITH ALL RULES AND REGULATIONS PERTAINING TO FM DIRECTIONAL ANTENNA SYSTEMS AND FM AUXILIARY ANTENNAS. ADDITIONALLY, IT WILL NOT CAUSE AN ENVIRONMENTAL ISSUE RELATING TO RADIO FREQUENCY EXPOSURE LEVELS OCCURRING WITHIN THE UNCONTROLLED/PUBLIC ENVIRONMENT. THEREFORE, THE APPLICANT REQUESTS THAT A CONSTRUCTION PERMIT FOR AN AUXILIARY ANTENNA BE GRANTED TO STATION KXCI-FM.

SINCERELY,



JAMES S. STANLEY  
CERTIFIED PROFESSIONAL BROADCAST ENGINEER  
No. 50725 EXPIRES 01/01/2015

SEPTEMBER 27, 2013

Figure 2



**UNITED STATES OF AMERICA  
FEDERAL COMMUNICATIONS COMMISSION  
ANTENNA STRUCTURE REGISTRATION**



OWNER: GOOD NEWS RADIO BROADCASTING, INC.

FCC Registration Number (FRN): 0004072849

ATTN: DOUG MARTIN GOOD NEWS RADIO BROADCASTING, INC. 3222 S. RICHEY AVE. TUCSON, AZ 85713	Antenna Structure Registration Number <p align="center">1009810</p>
	Issue Date <p align="center">06/17/2013</p>
Location of Antenna Structure 2550 N LOS ALTOS AVE TUCSON, AZ 85705  County: PIMA	Ground Elevation (AMSL) <p align="right">728.4 meters</p>
	Overall Height Above Ground (AGL) <p align="right">86.9 meters</p>
Latitude 32° 15' 11.0" N	Longitude 110° 57' 46.0" W
NAD83	Overall Height Above Mean Sea Level (AMSL) <p align="right">815.3 meters</p>
Center of Array Coordinates <p align="center">N/A</p>	Type of Structure GTOWER Guyed Structure Used for Communication Purposes
Painting and Lighting Requirements: FCC Paragraphs 1, 3, 11, 21	
Conditions: The FAA has approved the absence of steady burning red obstruction (L-810) lights on this structure. Accordingly, this tower will use red flashing lights (L-864) only.	

This registration is effective upon completion of the described antenna structure and notification to the Commission. **YOU MUST NOTIFY THE COMMISSION WITHIN 24 HOURS OF COMPLETION OF CONSTRUCTION OR CANCELLATION OF YOUR PROJECT, please file FCC Form 854.** To file electronically, connect to the antenna structure registration system by pointing your web browser to <http://wireless.fcc.gov/antenna>. Electronic filing is recommended. You may also file manually by submitting a paper copy of FCC Form 854. Use purpose code "NT" for notification of completion of construction; use purpose code "CA" to cancel your registration.

The Antenna Structure Registration is not an authorization to construct radio facilities or transmit radio signals. It is necessary that all radio equipment on this structure be covered by a valid FCC license or construction permit.

**You must immediately provide a copy of this Registration to all tenant licensees and permittees sited on the structure described on this Registration (although not required, you may want to use Certified Mail to obtain proof of receipt), and display your Registration Number at the site. See reverse for important information about the Commission's Antenna Structure Registration rules.**

## Figure 2 (continued)

You must comply with all applicable FCC obstruction marking and lighting requirements, as set forth in Part 17 of the Commission's Rules (47 C.F.R. Part 17). These rules include, but are not limited to:

**Posting the Registration Number:** The Antenna Structure Registration Number must be displayed in a conspicuous place so that it is readily visible near the base of the antenna structure. Materials used to display the Registration Number must be weather-resistant and of sufficient size to be easily seen at the base of the antenna structure. Exceptions exist for certain historic structures. See 47 C.F.R. 17.4(g)-(h).

**Inspecting lights and equipment:** The obstruction lighting must be observed at least every 24 hours in order to detect any outages or malfunctions. Lighting equipment, indicators, and associated devices must be inspected at least once every three months.

**Reporting outages and malfunctions:** When any top steady-burning light or a flashing light (in any position) burns out or malfunctions, the outage must be reported to the nearest FAA Flight Service Station, unless corrected within 30 minutes. The FAA must again be notified when the light is restored. The owner must also maintain a log of these outages and malfunctions.

**Maintaining assigned painting:** The antenna structure must be repainted as often as necessary to maintain good visibility.

**Complying with environmental rules:** If you certified that grant of this registration would not have a significant environmental impact, you must nevertheless maintain all pertinent records and be ready to provide documentation supporting this certification and compliance with the rules, in the event that such information is requested by the Commission pursuant to 47 C.F.R. 1.1307(d).

**Updating information:** The owner must notify the FCC of proposed modifications to this structure; of any change in ownership; or, within 30 days of dismantlement of the structure.

You can find additional information at [\[insert link\]](#) or by calling (877) 480-3201 (TTY 717-338-2824).

## Figure 2 (continued)

**Registration Number:** 1009810

**Issue Date:** 06/17/2013

### OBSTRUCTION MARKING AND LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES

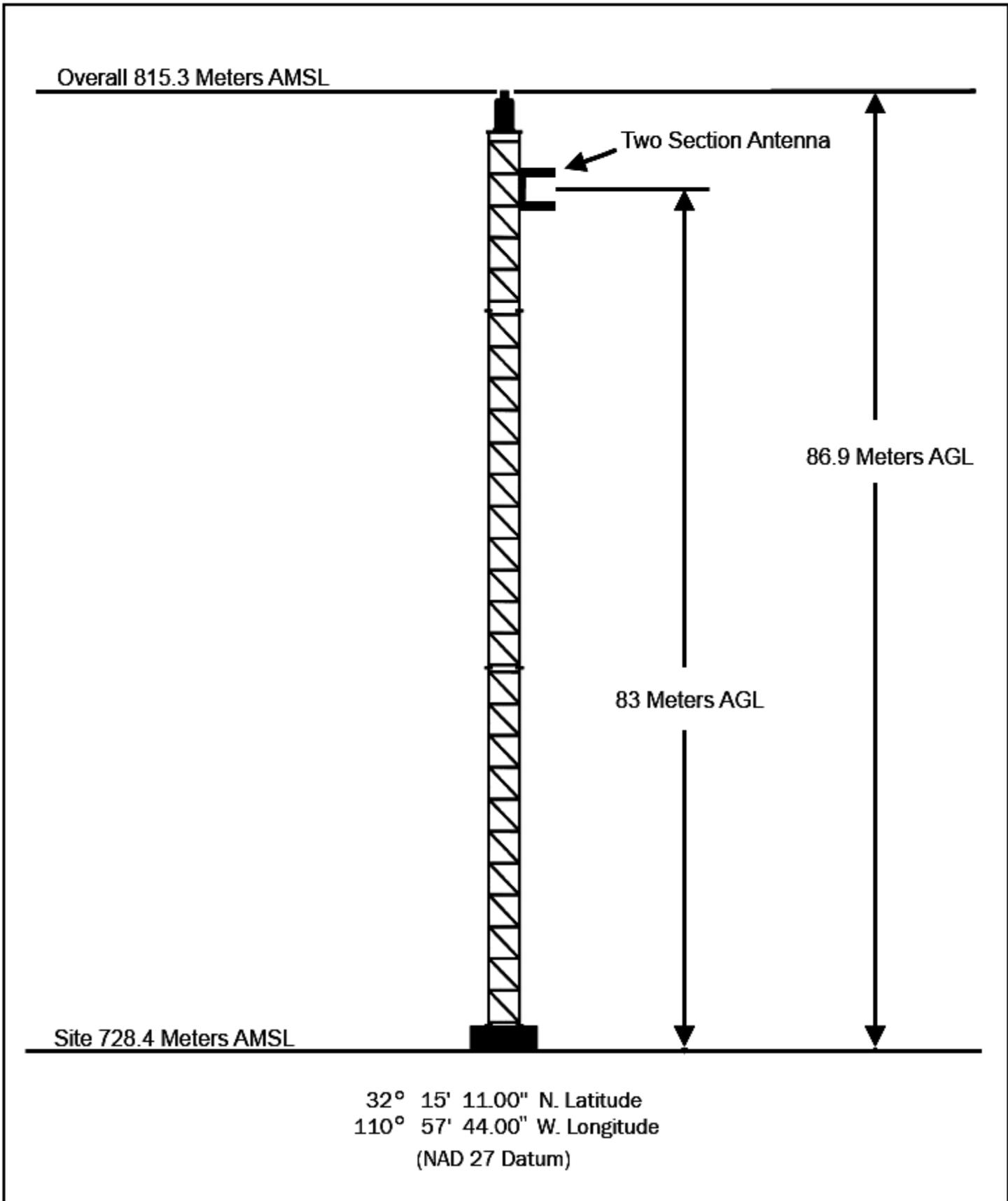
It is to be expressly understood that the issuance of the below specifications is in no way to be considered as precluding additional or modified markings or lighting as may hereafter be required under the provisions of Section 303(q) of the Communications Act of 1934, as amended.

1 Antenna structures shall be painted throughout their height with alternate bands of aviation surface orange and white, terminating with aviation surface orange bands at both top and bottom. The width of the bands shall be equal and approximately one-seventh the height of the structure, provided however, that the bands shall not be more than 30.48 meters (100 feet) nor less than .46 meters (1 1/2 feet) in width. All towers shall be cleaned or repainted as often as necessary to maintain good visibility.

3 There shall be installed at the top of the structure one 300 m/m electric code beacon equipped with two 620- or 700-watt lamps (PS-40, Code Beacon type), both lamps to burn simultaneously, and equipped with aviation red color filters. Where a rod or other construction of not more than 6.10 meters (20 feet) in height and incapable of supporting this beacon is mounted on top of the structure and it is determined that this additional construction does not permit unobstructed visibility of the code beacon from aircraft at any normal angle of approach, there shall be installed two such beacons positioned so as to insure unobstructed visibility of at least one of the beacons from aircraft at any normal angle of approach. The beacons shall be equipped with a flashing mechanism producing not more than 40 flashes per minute nor less than 12 flashes per minute with a period of darkness equal to approximately one-half of the luminous period.

11 At the approximate midpoint of the overall height of the tower, there shall be installed at least two 116- or 125-watt lamps (A21/TS) enclosed in aviation red obstruction light globes. Each light shall be mounted so as to insure unobstructed visibility of at least one light at each level from aircraft at any normal angle of approach.

21 All lights shall burn continuously or shall be controlled by a light sensitive device adjusted so that the lights will be turned on at a north sky light intensity level of about 35 foot candles and turned off at a north sky light intensity level of about 58 foot candles.



<p>Not To Scale</p>	<p>Radio Station KXCI - FM          Tucson, Arizona  <b>Vertical Elevation</b></p>
<p>Stanley Broadcast Engineering          Surprise, Arizona          (623) 215 - 9925</p>	

092313

Figure 3



KXCI-FM CHANNEL 217C2 91.3 MHz

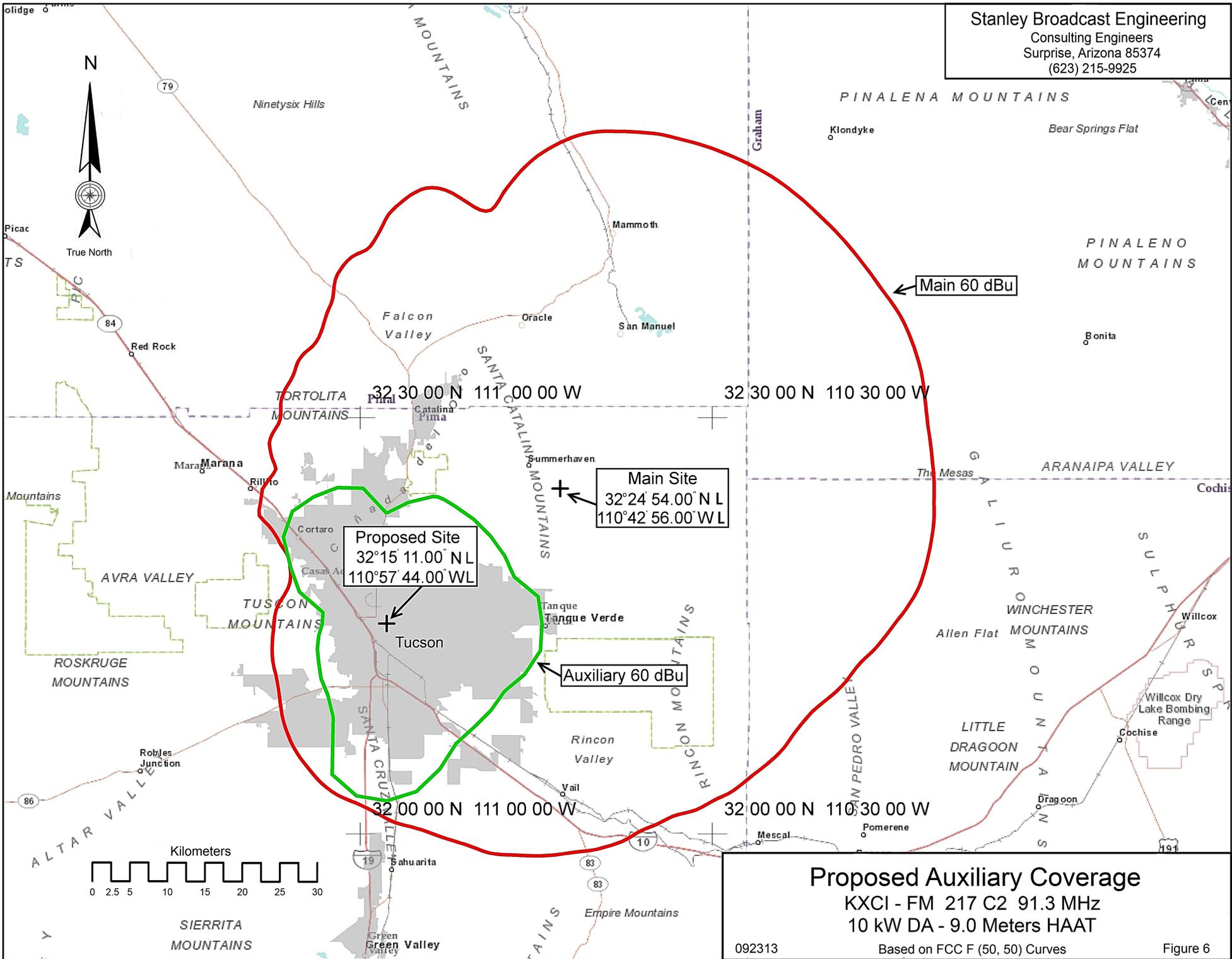
TUCSON ARIZONA

AUXILIARY ANTENNA

FIGURE 5

DISTANCE BASED ON F (50,50) CURVES

<u>DEGREES TRUE</u>	<u>HAAT</u>	<u>RELATIVE FIELD</u>	<u>DIST. 60 DBU KM</u>
0	26.6	.678	14.7
10	-102.2	.830	16.4
20	-212.7	1.0	18.1
30	-284	1.0	18.1
40	-189.7	1.0	18.1
50	-95.3	1.0	18.1
60	2	1.0	18.1
70	23.7	1.0	18.1
80	37.7	1.0	20.5
90	38.6	1.0	20.7
100	39.2	1.0	20.8
110	34.3	1.0	19.6
120	28.5	1.0	18.1
130	24.3	1.0	18.1
140	24.6	1.0	18.1
150	30.2	1.0	18.5
160	38.7	1.0	20.7
170	46.9	1.0	22.8
180	52.9	.964	23.68
190	64	.781	23.32
200	64.5	.649	21.47
210	34.6	.560	14.4
220	16.9	.479	12.4
230	0.8	.409	11.5
240	6.4	.340	10.5
250	-45.4	.300	9.89
260	-35.7	.260	9.22
270	-36.4	.230	8.63
280	32.2	.210	8.64
290	73.5	.192	12.38
300	108	.192	14.8
310	125.8	.234	18
320	119.6	.289	19.6
330	95.1	.360	19.5
340	76	.447	19.3
350	54.5	.547	18.3



**Proposed Auxiliary Coverage**  
 KXCI - FM 217 C2 91.3 MHz  
 10 kW DA - 9.0 Meters HAAT  
 092313 Based on FCC F (50, 50) Curves Figure 6